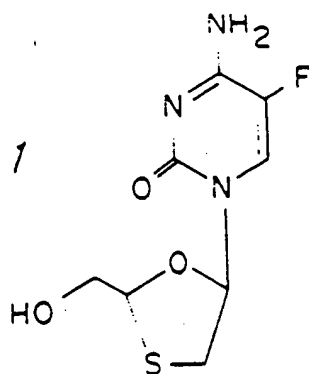
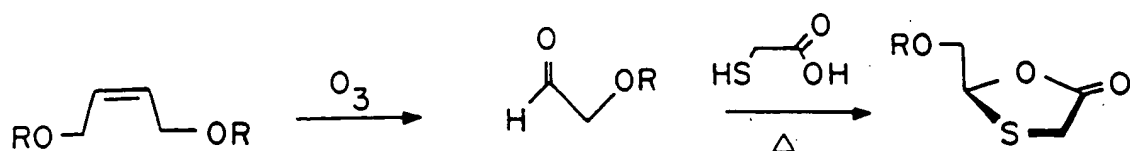


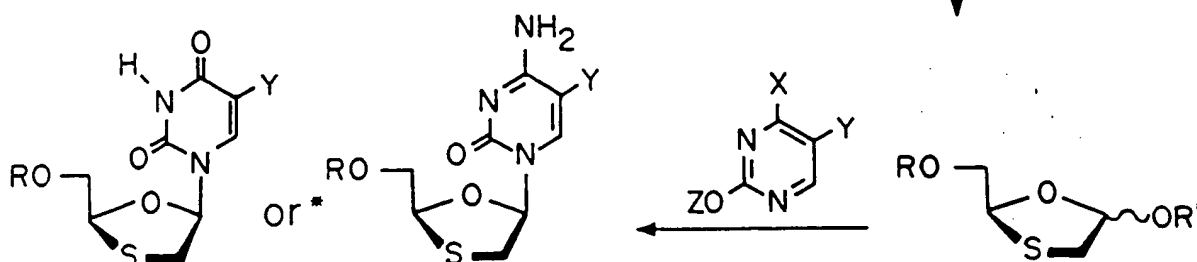
FIGURE 1





R = alkyl, silyl, acyl

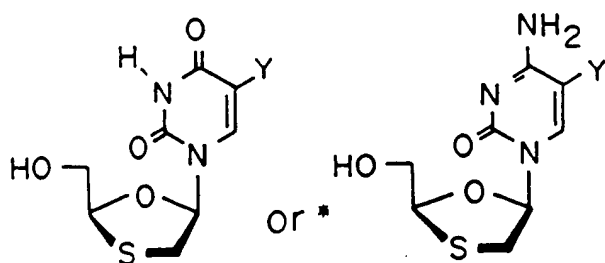
1. REDUCING AGENT
2. CARBOXYLIC ANHYDRIDE



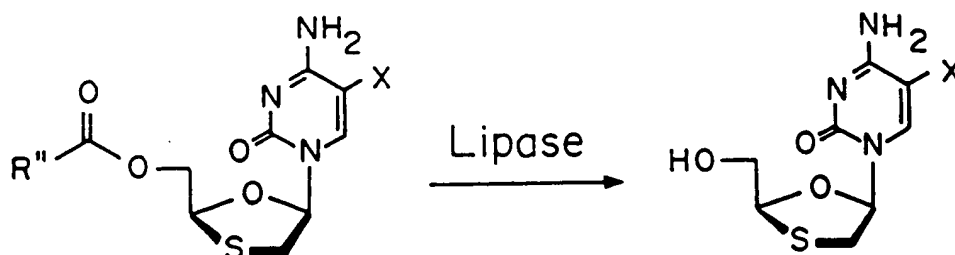
ENZYMATIC HYDROLYSIS
(R = Acyl)

X = OSiR₁R₂R₃, NHSiR₁R₂R₃
Y = CH₃, H, ETC.
Z = SiR₁R₂R₃

R' = Acyl

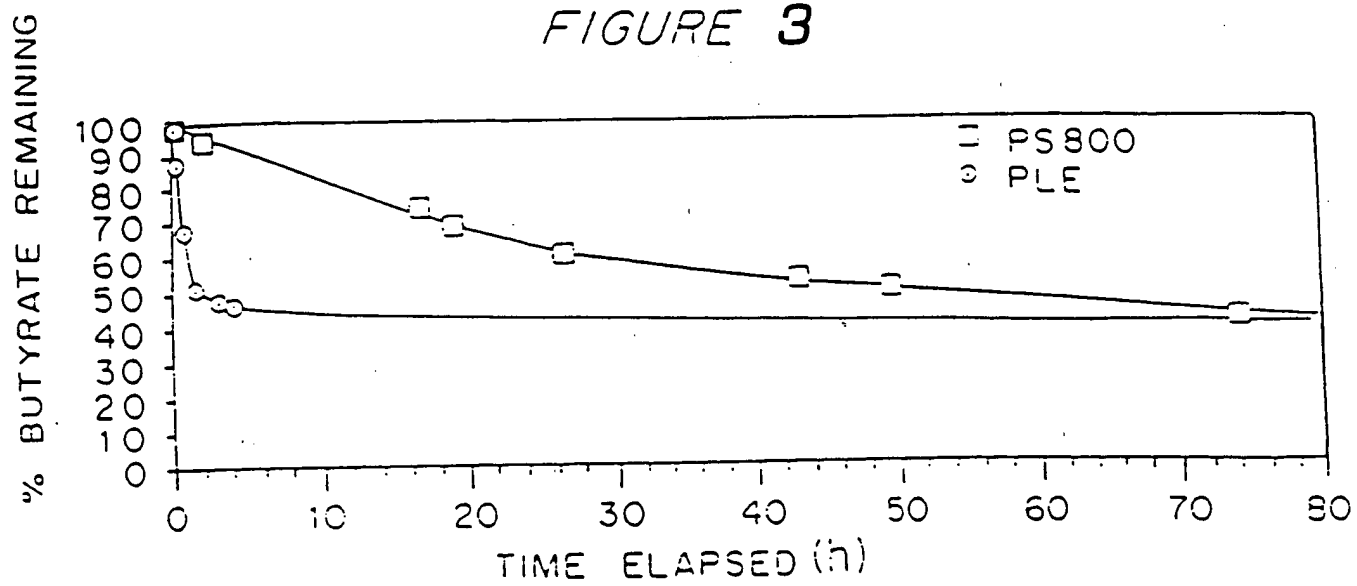


* PRODUCT OBTAINED
DEPENDS ON X



R'' = alkyl, substituted alkyl; X = H, F, alkyl, halogen, etc.
Lipase = pig liver esterase, porcine pancreatic lipase,
Amano PS-800, subtilisin, etc.

FIGURE 3



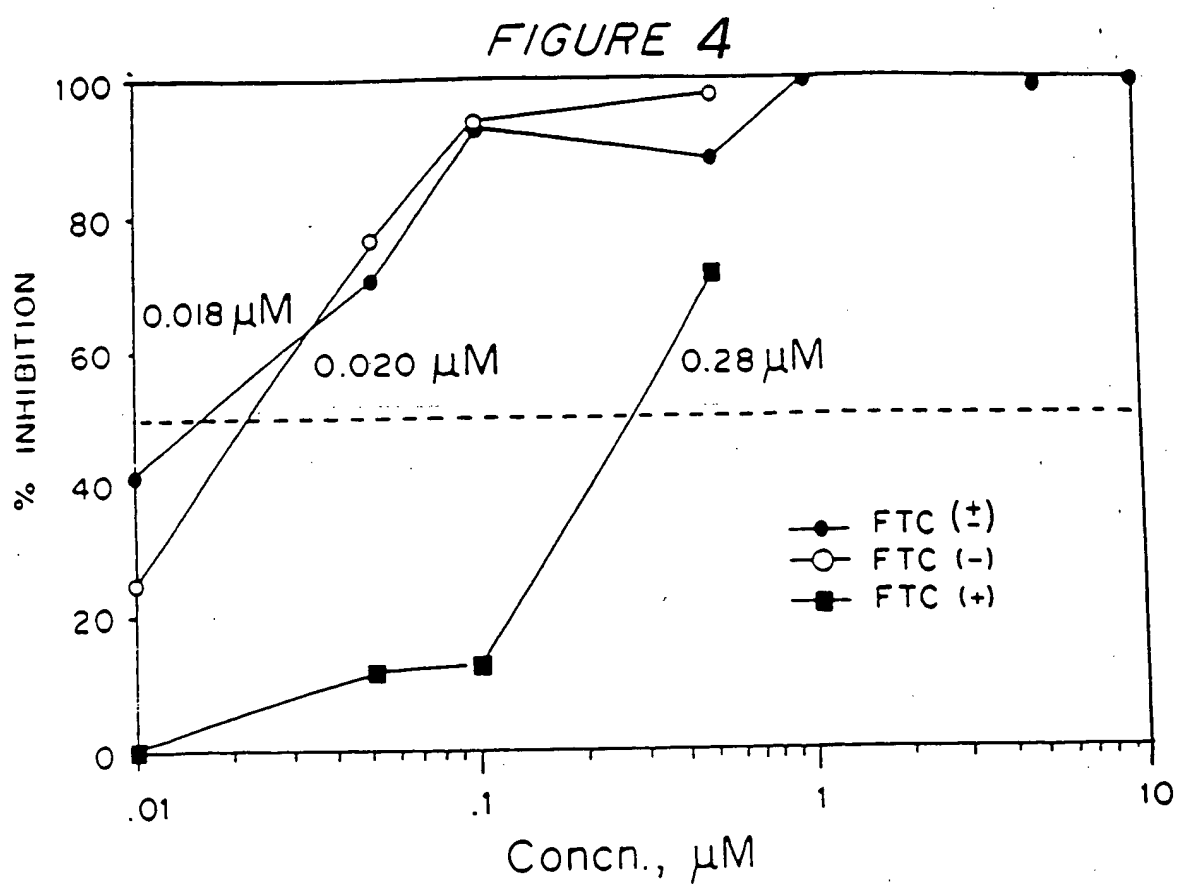
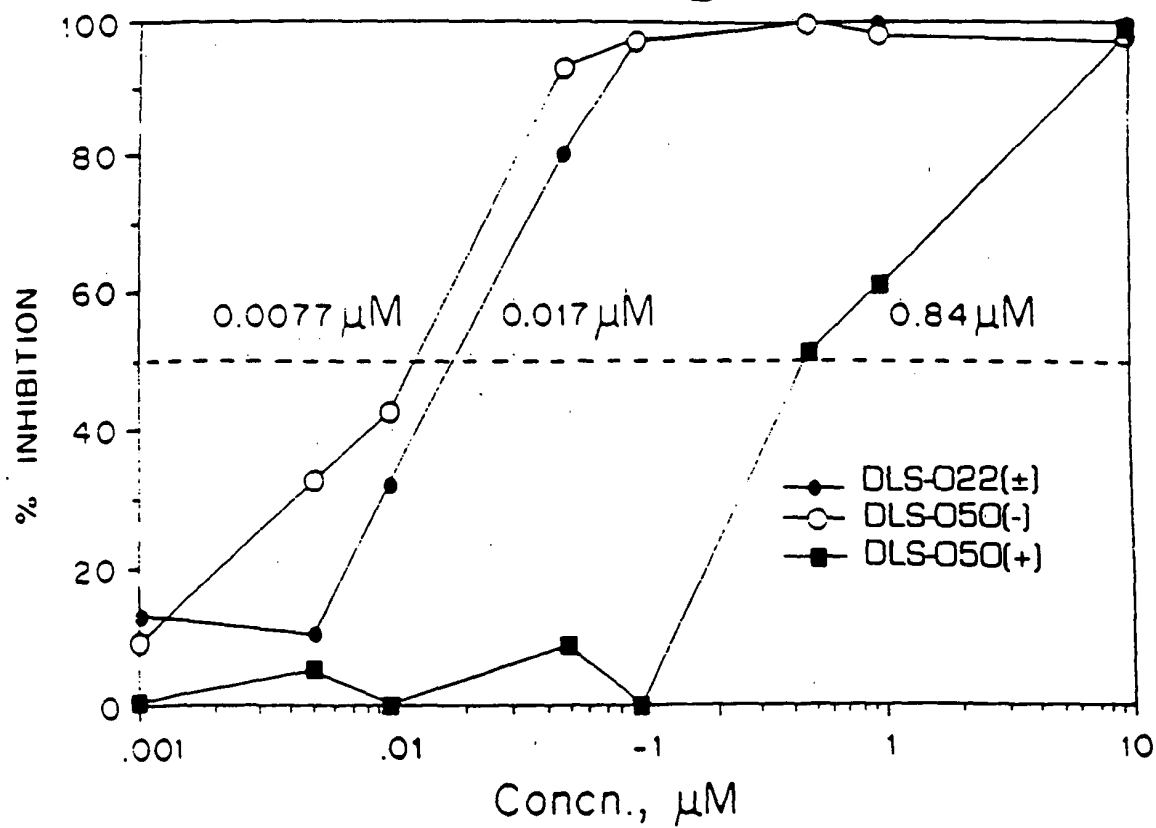


FIGURE 5



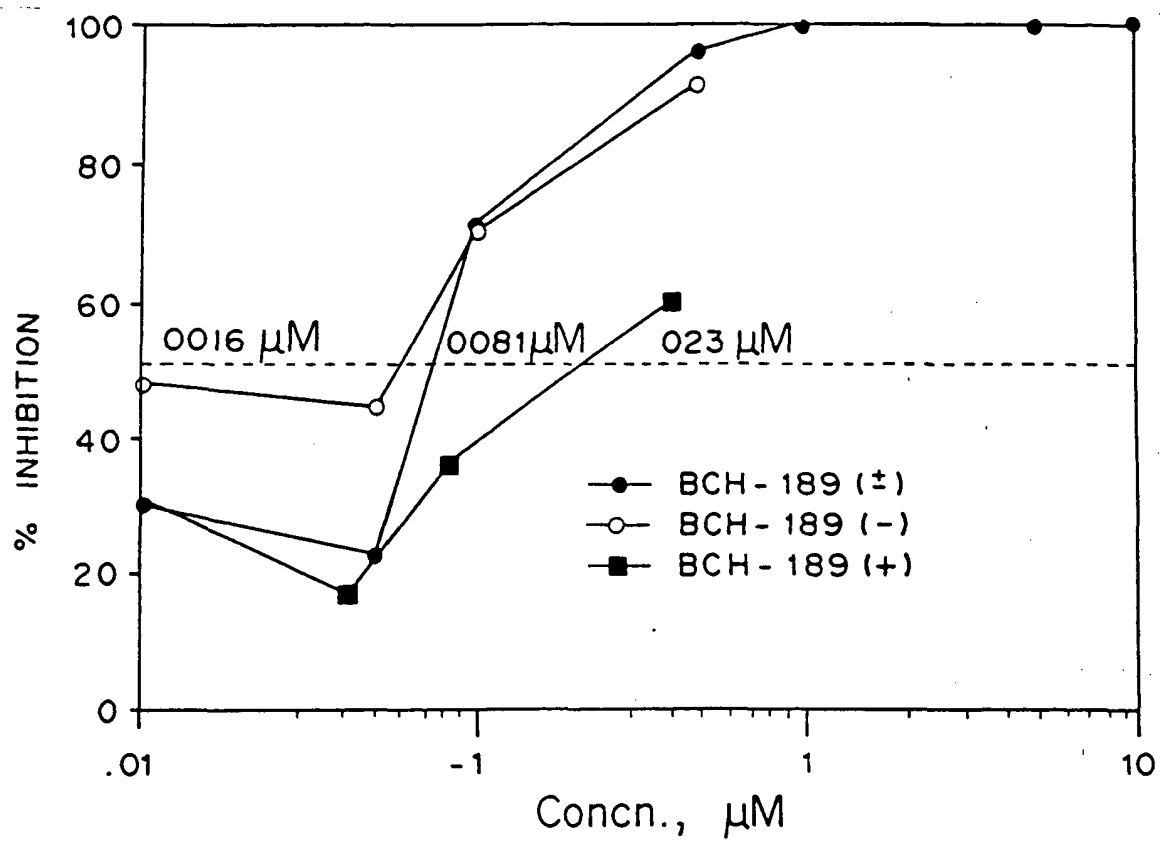


FIG. 6

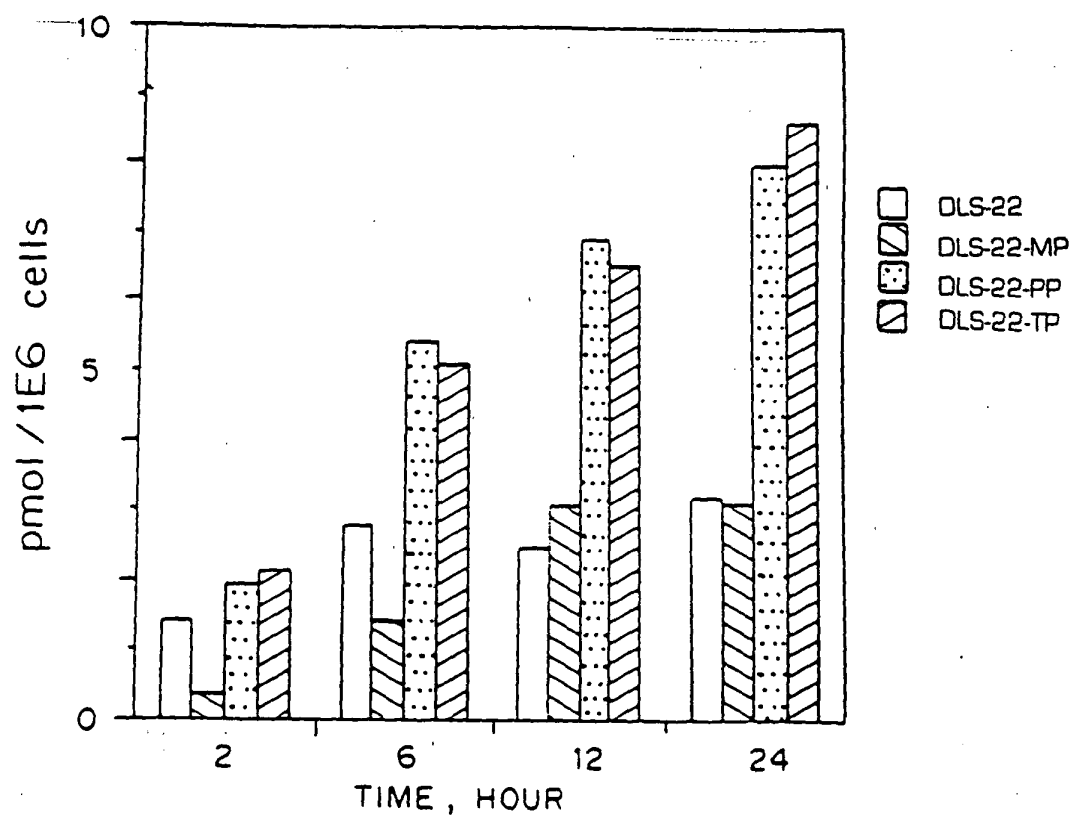


FIGURE 7

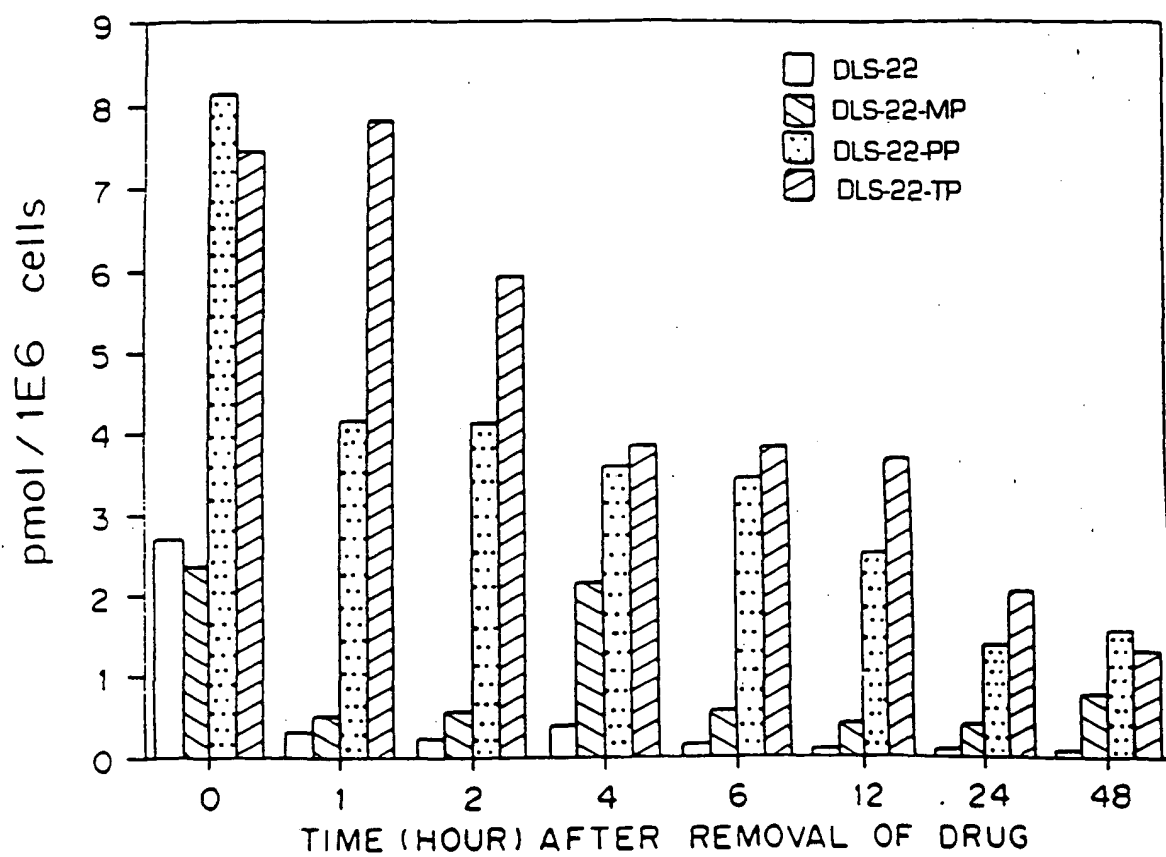


FIGURE 8